

REMARKS

Applicant thanks the Examiner for the indication of allowable subject matter and respectfully requests the reconsideration and allowance of the present application in light of the Applicant's remarks stated below. Claims 1-25 as currently presented and amended herein are pending in the application. Applicant has amended claims 1 - 6, 16, 18, and 25. The Examiner indicated that claims 3-5, 7, 8 and 25 would be allowable is re-written in independent form including all of the limitations of the base claim and any intervening claims. Claims 3 and 4 have been placed in independent format and include the limitations of claim 1 as originally filed and claim 2 as amended. Claims 5 and 6 have been placed in independent format to include the limitations of claim 1 as originally filed. Finally, claim 25 has been placed in independent format to include the limitations of claim 18. Thus, claims 3, 4, 5, 6 and 25 are in condition for allowance based on the comments made by the Examiner in the Office Action. The remaining claims are respectfully believed to also be in conditions for allowance for the reasons set forth below.

The Examiner objected to claims 1 and 16 because of certain informalities, namely that in claim 1, line 7, the phrase "the plate" lacks antecedent basis, and in claims 1 and 16 the Examiner suggested replacing the phrase "to use" in line 7 of claim 1 and in line 9 of claim 16 with the phrase --to be used--. The Examiner required appropriate correction of the informalities. Applicant has amended claim 1 to replace the phrase "the plate" with --said sheet--. Antecedent basis for the phrase --said sheet-- is found in claim 1, line 5. Applicant has also amended claims 1 and 16 to replace the phrase "to use" with the phrase --to be used-- as suggested by the Examiner. Applicant asserts that the presently amended claims are now clear and definite in compliance with 35 USC §112.

Claims 1, 16 and 18 have been amended to more clearly define Applicant's portable temperature verification mat and method for verifying the accuracy of an infrared thermometer. The portable temperature verification mats of claims 1 and 16 are utilized to verify the accuracy of an infrared thermometer and include a sheet of thermo-conductive material that has first and second opposing surfaces. A black body target is affixed on and conformal with a first surface of the thermo-conductive sheet and is adapted to be used as a source of infrared radiation for detection by the infrared thermometer. A contact thermometer is also conformally arranged on

the first surface adjacent to the black body target for comparison with the reading of the infrared thermometer focused on the target. Claim 18 is directed to a method for verifying the accuracy of an infrared thermometer utilizing an above described thermo-conductive mat having a black body target and an adjacent contact thermometer conformally affixed thereon. The mat is releasably attached to an object having a desirable temperature after which the infrared thermometer is aimed at the black body target. The reading of the infrared thermometer is then compared with the reading of the contact thermometer to determine the accuracy of the infrared thermometer.

The Examiner rejected original claims 1 - 2, 6, 16 and 18 under 35 USC §102(b) as being anticipated by U.S. Patent No. 3,631,708 to Ensor. A rejection grounded on anticipation under 35 USC §102 is proper only where the subject matter claimed is identically disclosed or described in a reference. In other words, anticipation requires the presence of a single prior art reference which discloses each and every element of the claimed invention arranged as in the claim. Applicant submits that the Ensor '708 patent does not disclose each and every element of Applicant's claimed invention arranged as in Applicant's amended claims. Therefore, for those reasons set forth in detail below, the amended claims, as amended, patentably distinguish over the Ensor '708 patent, as well as the other references of record.

The Examiner states that the liquid bath reference cavity disclosed in Ensor '708 is identical to Applicant's claimed portable temperature verification mat as recited in claims 1 - 2, 6, 16 and 18. Ensor '708 teaches a liquid bath-type reference cavity comprising a body portion or canister having a reservoir 12 mounted therein and separated from the body 10 by insulation 14. The open end of body 10 is covered by closing plate 16 which defines a central opening 18 therethrough. Reservoir 12 is filled with a liquid 15, typically either cooled or heated water. A thermally conductive bellows 20 is mounted to an inside surface of plate 16 at opening 18 such that an interior of bellows 20 is visible through opening 18. The inside of bellows 20 and most particularly its closed end 22 have a black finish to reduce reflectivity and improve the emissivity of the bellows interior. A thermometer, or temperature sensing device 28 extends through a second aperture in plate 16 and extends into the liquid 15 contained in reservoir 12.

The liquid bath reference cavity of Ensor '708 is totally unlike the temperature verification mat which Applicant claims as its invention. The cover plate 16 of Ensor '708 is not a thermo-conductive sheet since plate 16 of Ensor '708 would ideally be insulative in nature to compliment insulation 14 separating body 10 from reservoir 12, and therefore teach away from being thermo-conductive. Ensor '708 also teaches a required opening 18 in top 16, which is not present in Applicant's claim recitation. Further, the blackened portion, or thermal target, at which the infrared thermometer is to be aimed in Ensor '708 is the interior of a bellows that is affixed to a back surface of plate 16 and aligned with opening 18. The Ensor '708 bellows extends rearwardly from plate 16 unlike Applicant's temperature verification mat where the black body target is affixed to a first surface of the thermo-conductive sheet and is conformal therewith. Likewise, the contact thermometer recited in Applicant's claims is conformally arranged on the first surface adjacent to the black body target whereas in the Ensor '708 reference teaches the thermometer 26 extending through the top cover plate 16 such that the temperature sensing portion of thermometer 26 is immersed in fluid 15 within reservoir 12. Therefore, the Ensor '708 reference does not disclose nor teach a thermo-conductive sheet, a black body target conformally affixed to a first surface of the sheet, nor a contact thermometer also conformally arranged on the first surface of the sheet and adjacent to the black body target. Since the Ensor '708 reference does not teach or disclose all of the elements of Applicant's portable temperature verification mat, independent claims 1, 16 and 18 are not anticipated by the Ensor '708 patent. Further, by their dependence either directly or indirectly from one of independent claims 1, 16 and 18, Applicant submits that the dependent claims are also patentably distinct.

The Examiner also rejected claims 1 - 2, 6, 14 - 18 and 24 under 35 USC §102(b) as being anticipated by U.S. Patent No. 3,348,408 to Engborg. Engborg '408 teaches a reference black body source for infrared instruments similar to the reference cavity of Ensor '708. Specifically, Engborg '408 teaches an insulated canister 1 filled with a liquid. A cover 3 has a closed end tube 4 extending into the liquid from an opening in the top of cover 3 wherein the inside of tube 4 is blackened. A thermometer 5 extends through cover 3 such that the temperature sensing portion of thermometer 5 is immersed in the liquid.

As discussed above with respect to the Ensor '708 reference, the Engborg '408 reference does not teach a thermo-conductive sheet, since cover 3 of Engborg '408 would ideally be insulative to complement the insulation 2 of canister 1, and therefore teaches away from a thermo-conductive sheet as recited in Applicant's claims. Further, the blackened tube 4, which is the blackened target, and the thermometer 5 of Engborg '408 extend inwardly from top 3 and are immersed in the liquid within canister 1. The blackened target and thermometer are not conformally applied to a first surface of the thermo-conductive sheet but rather extend away from top 3 of the Engborg '408 reference cavity. Therefore, Applicant independent claims 1, 16 and 18 are not anticipated by the Engborg '408 reference, since Engborg '408 does not teach or disclose a thermo-conductive sheet, a conformal black target, nor a conformal temperature strip as recited in Applicant's claims. Since the independent claims 1, 16 and 18 are patentable over the Engborg '408 reference, the dependent claims are also patentably distinct thereover.

The remaining references have been carefully examined and none teach or suggest those features of Applicant's portable temperature verification mat and method of verifying the accuracy of an infrared thermometer using the mat that are noted as lacking in the references of record.

Applicant has made a concerted effort to place this application in condition for allowance. If the Examiner believes that there are any additional informalities, the courtesy of a telephone call to Applicant's attorney would be appreciated.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Any fees associated with the filing of this paper should be identified in an accompanying fee transmittal. However, if any additional fees are required in connection with the filing of this paper, permission is given to charge Account No. 18-0013 in the name of Rader, Fishman & Grauer PLLC.

Dated: October 10, 2003

Respectfully submitted,

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